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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,282	12/29/2000	Schuster Karl-Heinz	001406	9180

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EXAMINER

NGUYEN, HUNG

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/752,282

Applicant(s)

KARL-HEINZ ET AL.

Examiner

Hung Henry V Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5 and 8-15 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to because of the following informalities: reference to "direting" in line 3, should read -- directing--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-5, 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokuda et al (U.S. Pat. 5,995,263) in view of Komoriya et al (U.S. Pat. 5,025,284).

With respect to claims 1, 3, and 12-15, Tokuda et al discloses a microlithographic projecting printing installation having a rotationally non-symmetrical illumination and comprising substantially all of the limitations of the instant claims such as : a projection optical system (14); a light source (IL) for emitting radiation; a gas supply apparatus (32A, 32Aa, 32B, 32Bb) having at least one gas directing device (32A,32B) which is positioned relative to optical lens (15) and the temperature of gas and the flow rate of the supplied gas are measured and controlled so that the flow rate of the gas has a magnitude and spatial distribution (clearly

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illustrated as arrows in fig.1) which are adjusted in accordance with the intensity distribution of the light source (see col.7, lines 3-41 and figs.1, 3).

With regard to claims 2 and 4, 8-11, Tokuka further teaches controlling the flow rate of the gas for cooling the optical lens (15). Tokuda does not expressly disclose "throttle valves". Komoriya et al teaches throttle valves (36,37) placed in the gas supply line for controlling the gas flow rate and to change the area of the optical element that is exposed to the gas flow. It would have been obvious to a skilled artisan to utilize the throttle vales as taught by Komoriya into the device of Tokuda for controlling the gas flow rates and the area of the optical element that is exposed to the gas flow.

As to claim 5, although the prior arts do not specifically disclose the claimed adjustable holding device to hold the nozzle, the holding device is seen to be inherent teaching of that device since a means for holding the nozzle must be present for the nozzle to function as intended. In addition, it would have been obvious to a skilled artisan that the nozzle should be made adjustable relative to the optical element whereby any selected regions on the surface of the lens can be cooled off via the nozzle. Also, it has been held that provision of adjustability, where needed, involves only routine skill in the art. *In re Stevens*, 101 USPQ 284 (CCPA 1954).

4. Claims 2-5, 8-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinji et al (JP-10-214782) in view of Komoriya et al (U.S.Pat. 5,025,284).

With respect to claims 2-5 and 8-15, Shinji discloses a microlithographic projection printing installation (see fig.1) having a rotationally non-symmetrical illumination and comprising a light source (32) which emits radiation, an optical system (40) which is heated by

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the radiation, and a supply apparatus (52) for gas tempering the optical system wherein the supply apparatus comprises at least one gas supply line (see abstract) and at least one gas directing device (54a-54h and see fig.3) for directing a gas flow onto the optical element, the gas directing device being adjustable so as to change the area of the optical element that is exposed to the gas flow (see fig.2). Shinji lacks to show "throttle valves". Komoriya et al teaches throttle valves (36,37) placed in the gas supply line for controlling the gas flow rate and to change the area of the optical element that is exposed to the gas flow. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Komoriya and Shinji to obtain the invention as specified in above claims. It would have been obvious to a skilled artisan to employ the throttle vales as taught by Komoriya into the gas directing device of Shinij for controlling the gas flow rates and the area of the optical element that is exposed to the gas flow whereby the temperature of the optical device is kept at a desired level to prevent the optical element from being deformed.

As to claim 5, Shinji does not specifically disclose the holding device (see fig.3) for the gas directing device being adjustable. It would have been obvious to a skilled artisan that the nozzle (54a-d) should be made adjustable relative to the optical element whereby any selected regions on the surface of the lens can be cooled off via the nozzle. Also, it has been held that provision of adjustability, where needed, involves only routine skill in the art. *In re Stevens*, 101 USPQ 284 (CCPA 1954).

Allowable Subject Matter

3. Claims 6-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not specifically teach an adjusting device for adjusting the axial position/the inclination of the gas directing device relative to the optical element as recited in the claims 6-7 of the instant application.

Response to Amendments/Arguments

5. Applicant's amendments filed May 7, 2003 have been entered. Claim 1 has been cancelled. Claims 2-14 have been amended. New claim 15 has been added. In response to applicant's arguments against the references individually, the applicant is reminded that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

With respect to the prior art of record, applicant's arguments have been carefully reviewed but have been traversed in view of new grounds of rejection as set forth above.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V Nguyen whose telephone number is 703-305-6462. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 703-308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.

hvn
July 11, 2003


HENRY HUNG NGUYEN
PRIMARY EXAMINER